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The Army Metering Data Management System (MDMS)

Using MDMS

To Meet the Army's Energy Goals

Report Documentation Page

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Meeting Army Energy Goals

- The metering data management system (MDMS) captures and reports enterprise data from advanced meters

- MDMS will help the Army to comply with:
  - Energy Policy Act of 2005 (EPAct 2005)
  - Energy Independence and Security Act of 2007 (EISA 2007)
  - Executive Orders

- MDMS measures progress on strategies such as AEWCP, AESIS, and IMCP

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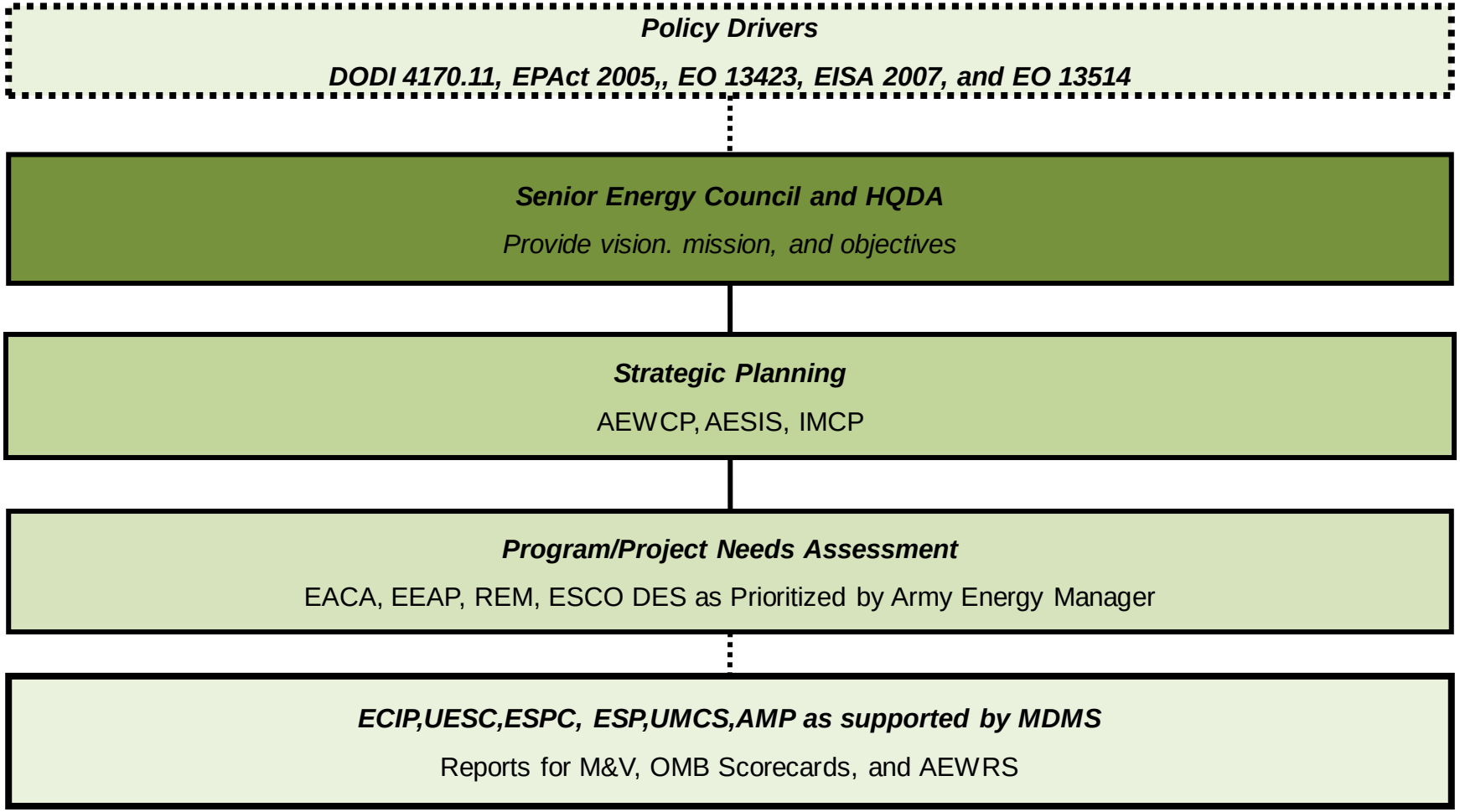
Meeting Army Energy Goals



Army Energy and Water Campaign Plan

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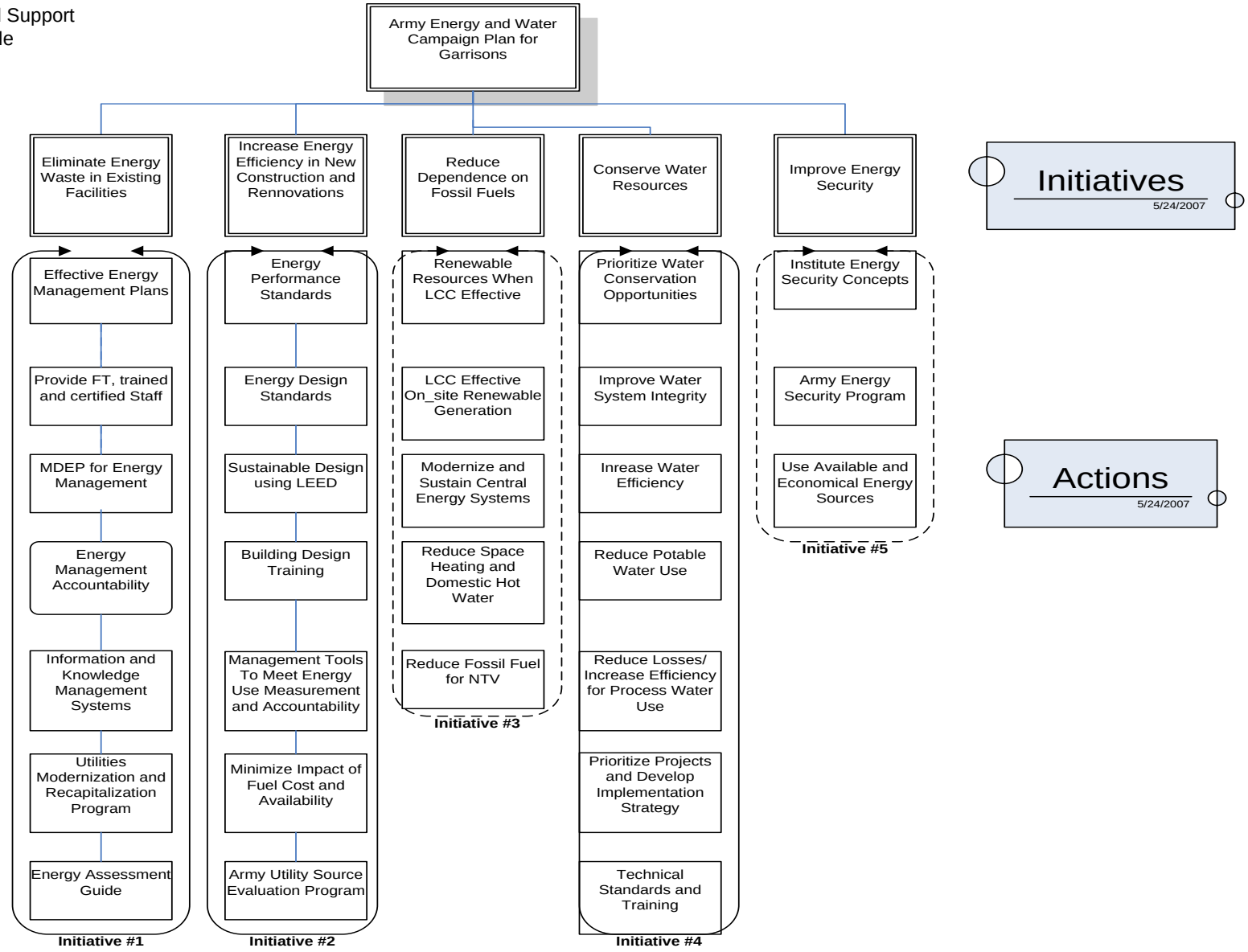

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Army Energy Security & Implementation Strategy (AESIS)

Energy Security Goals (ESG)

- ESG-1: Reduce energy consumption
- ESG-2: Increase energy efficiency across platforms and facilities
- ESG-3: Increase use of new renewable and alternative
- ESG-4: Assure access to sufficient energy supplies
- ESG-5: Reduce adverse impacts on the environment.

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Installation Management Campaign Plan (IMCP) Goals

Energy Goals (EN)

- EN 1 – Reduce energy and water consumption
- EN 2 – Increase energy and water efficiency and modernize infrastructure
- EN 3 – Improve the development of renewable and alternative energy, and ensure access to energy supplies
- EN 4 – Improve the development of renewable and alternative energy for vehicle fleet mobility fuel

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What is MDMS?

- An enterprise system to track the Army's energy consumption worldwide
  - Track meter data from advanced utility meters in a central database (MDMS Enterprise)
  - Automate meter data collection on a secure network
  - Produce energy reports accessible via Army Engineering Knowledge Online (EKO) and MDMS Enterprise Portal
- Provide active Army installations the ability to track utility commodities such as, electricity, water and natural gas consumption at the facility level
- Support Army's energy goals and improve energy consumption accountability

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MDMS Overview

- MDMS Pilot Phase
- Operational MDMS
- Future MDMS

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MDMS Pilot Phase

- Army has developed a MDMS pilot at Fort Carson and Fort Stewart. Effort included:
  - Developing MDMS architecture and software
  - Demonstrating proof of concept from installation to enterprise data and reporting system
  - Achieving Authority to Operate (ATO) effective 23 April 2010
  - Obtaining Defense Information Assurance Certification and Accreditation Process (DIACAP) and Certificate of Networthiness (CON) (Application submitted)

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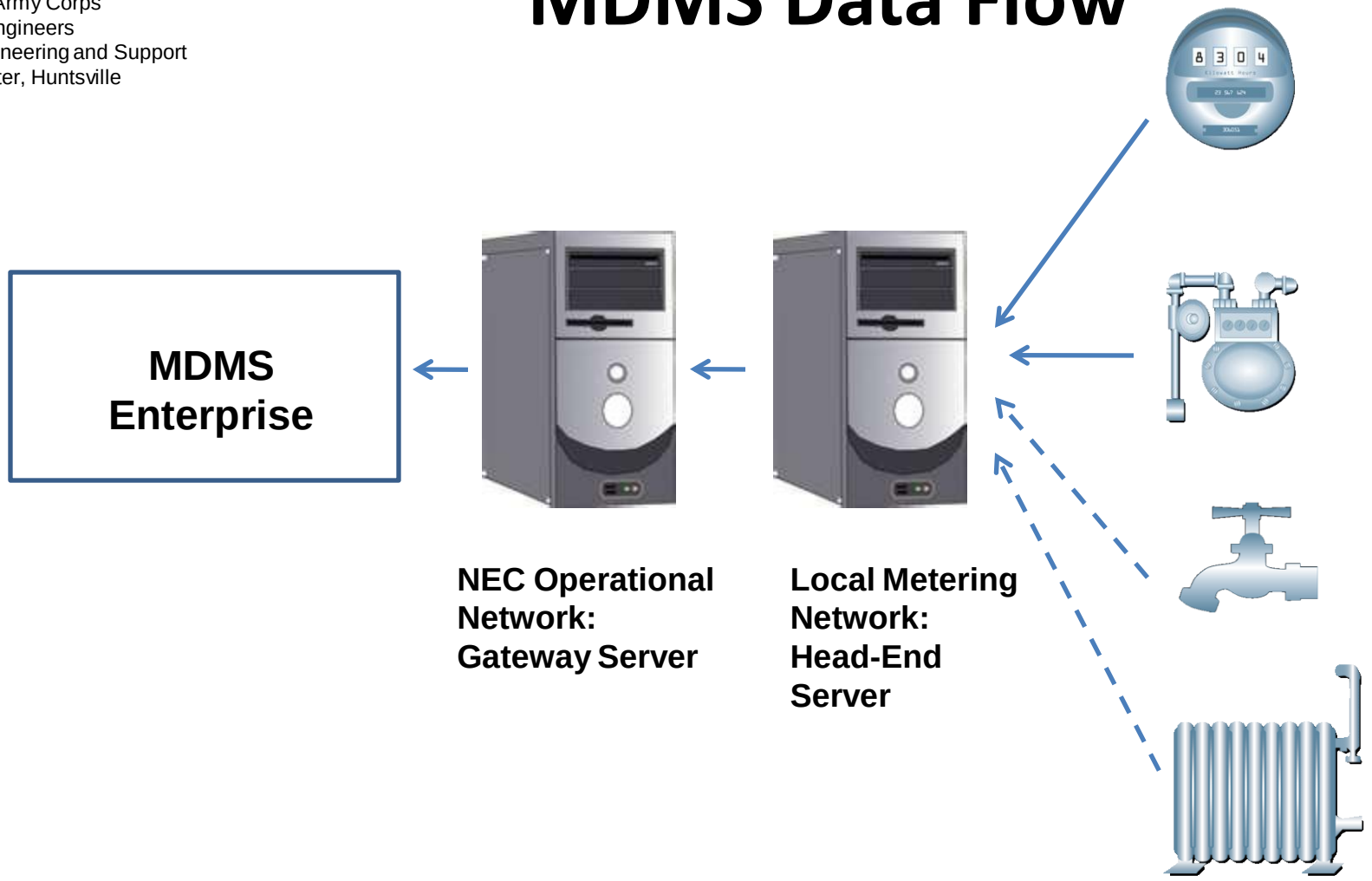
MDMS Data Flow



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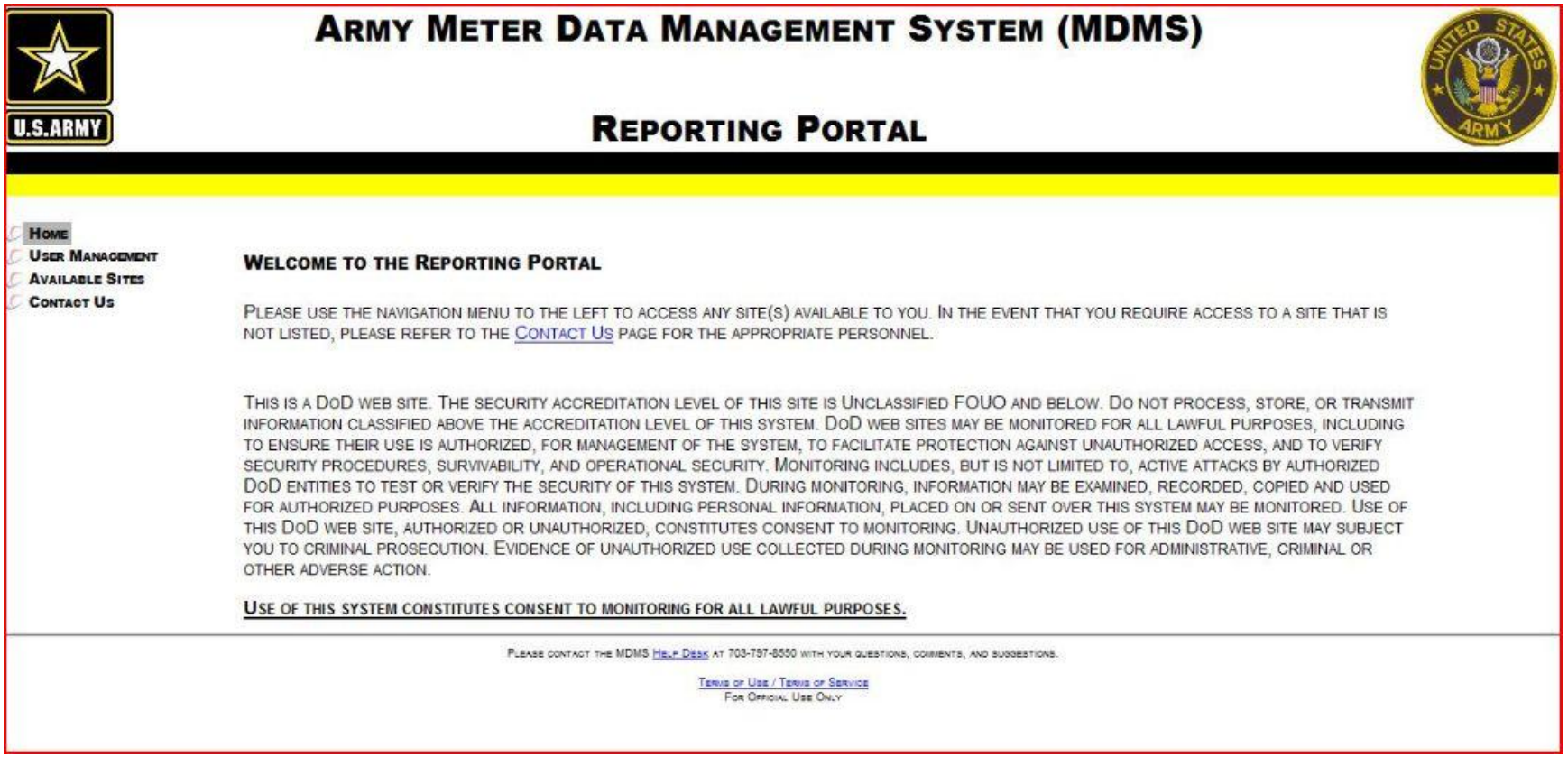
ARMY MDMS Reporting Portal



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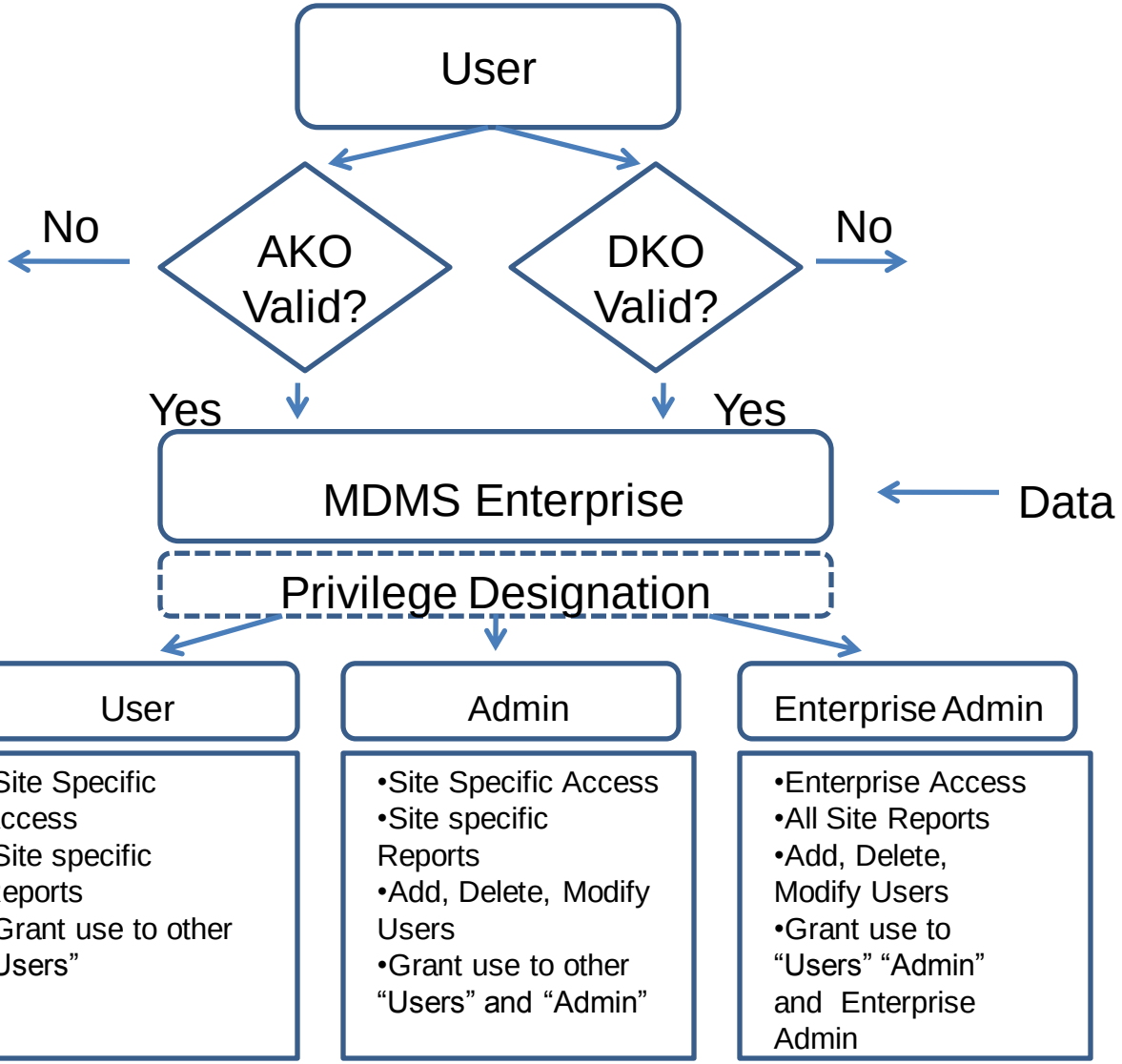
MDMS Access Flow



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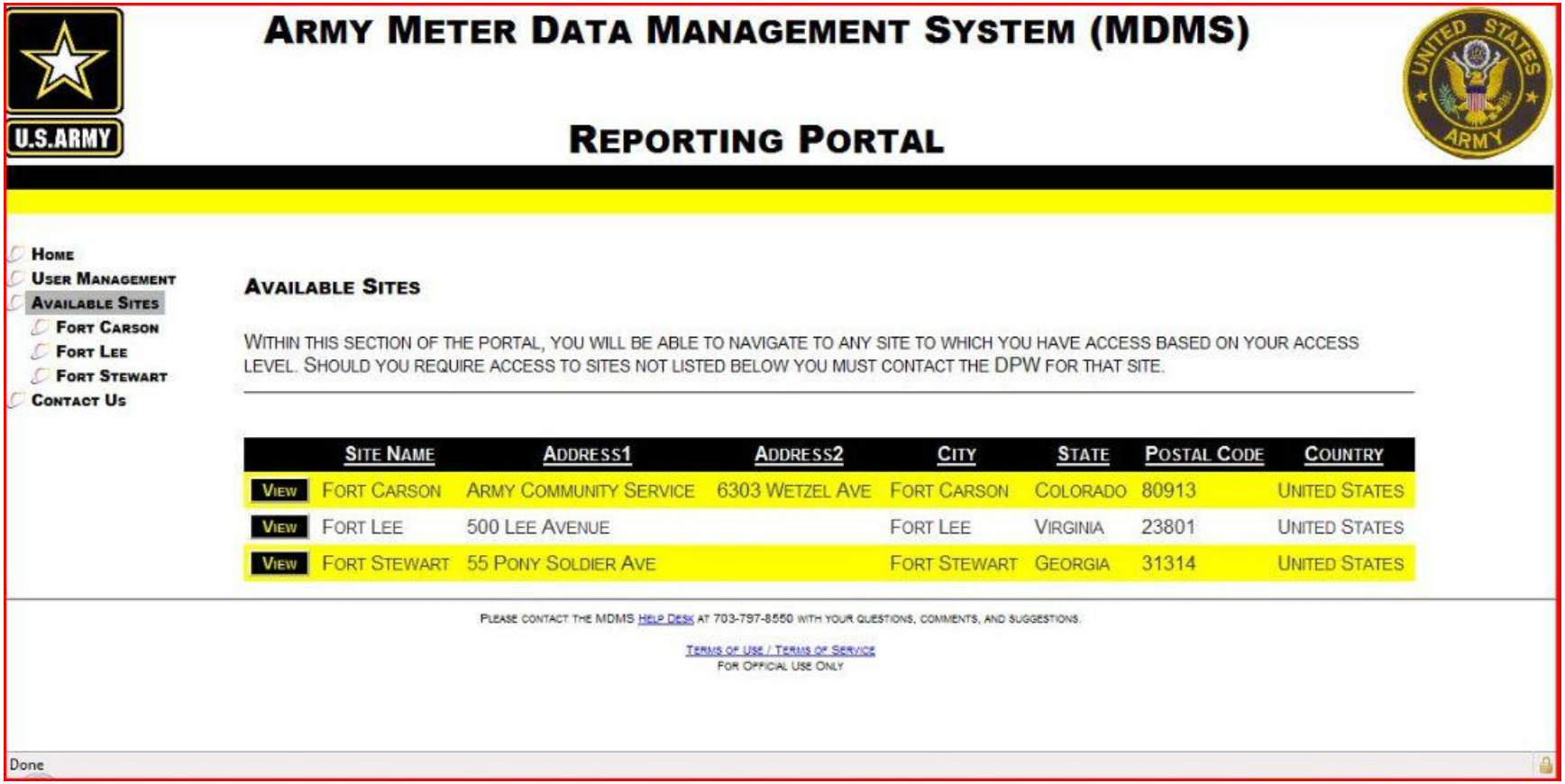
MDMS Pilot Sites



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MDMS Reports

MDMS has five available reports

- Energy Glide Path- Presents report of summed MDMS-metered MMBTU/ KSqFt and degree days
- Energy Intensity – Presents report for MMBTU/KSqFt by the 57 Energy Classification Codes (ECC)
- Building Report - Presents report for MMBTU/KSqFt by building, commodity type (water/gas), and date
- Meter Reading Report – Excel export of all meter data
- Hourly Demand - Report presents 24-hour usage (MMBtu) by building, commodity type, and time

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Operational MDMS

Focus on…

- Install MDMS at all Army installations
- Implement help desk support
- Integrate real property data
- Enhance reporting
  - Additional standard reports
  - Self-generation/ad-hoc reports

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Future MDMS

Focus on..

- Reducing energy waste in existing facilities.
  - Identify the most and least energy efficient facilities
  - Gain insight into what facility attributes and occupant practices contribute to the best of class
  - Directly measure the energy savings
- Reducing peak power demand to qualify for lower utility rates
- Facilitating private sector investment to build the new infrastructure for energy security and independence (e.g., ESPC).

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Future MDMS Applications

Beyond Legislative Compliance…

- Trending/Benchmarking
- Tenant Billing
- Efficiency Project Identification
- Measurement & Verification

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MDMS Stakeholders

- Proponent - Office of the Assistant Chief of Staff for Installation Management (OACSIM)
- Customer - Army Commands (ACOMs) and Installations
- Provider - CEHNC is responsible for implementing and executing MDMS and the AMP

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